

L1: (369) camera with (connect\$3 or attach\$3) with (external\$3 or remote\$3) with (computer\$1
 L2: (3734) (thumbnail\$1 or sub\$9) with (image\$1 or picture\$1) and (audio\$1 or sound\$1) and camera\$1
 L3: (12) ("6005493") or ("6005613") or ("6237010") or ("5675358") or ("5877781").PN.
 L4: (52) 1 and 2
 L5: (1300) (thumbnail\$1 or sub or subordinate) with (image\$1 or picture\$1) and (audio\$1 or so...
 L6: (43) ("4131919" | "4541021" | "4691253" | "4758883" | "4803554" | "4805013" | "4837628" |...
 L7: (5) ("5742779" | "5760916" | "5760917" | "5796428" | "5898779").PN.
 L8: (2) 6237010.URPN.
 L9: (2) ("5475441" | "5734425").PN.
 L10: (8) ("4714962" | "4751583" | "4827347" | "4937676" | "5016107" | "5034804" | "5231501" |...
 L11: (85) 5016107.URPN.
 L12: (41) ("4302776" | "4587633" | "4656525" | "4689696" | "4691253" | "4698672" | "4730222"...
 L13: (9) ("4394688" | "4969051" | "4970593" | "5016107" | "5144686" | "5231501" | "5475441" |...
 L14: (21) ("4500183" | "4524381" | "4574319" | "4728978" | "4853733" | "4855779" | "4994844"...
 L15: (65) 5477264.URPN.
 L16: (22) 4751583.URPN.
 L17: (25) 5402170.URPN.
 L18: (17) ("4622596" | "4901154" | "4992866" | "5128770" | "5258837" | "5296925" | "5303050"...
 L19: (23) 5479206.URPN.
 L20: (46) 4837633.URPN.
 L21: (9) ("5099324" | "5243418" | "5383128" | "5422812" | "5459824" | "5500904" | "5588067" |...
 L22: (2) 6005493.URPN.
 L23: (11) ("4396280" | "47314057" | "4731743" | "4825265" | "4855813" | "4892582" | "4901004"

	U	A	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	Retrieval Classif	
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6005613 A	19991221	11	Multi-mode digital camera with computer interface using data packets combining image and mode	348/231	348/220; 348/552		Endsley, Jay A.
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5706097 A	19980106	6	Index print with a digital recording medium containing still images, motion sequences, and	358/296	345/723; 355/40;		Schelling, Anna
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5633678 A	19970527	13	Electronic still camera for capturing and categorizing images	348/232	348/231; 348/239;		Parulski, Kenneth
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5414471 A	19950509	5	Movable cursor for selecting and exchanging main picture and sub picture in multi-picture display	725/56	345/802; 348/588;		Saitoh, Mitsuaki
5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 4930014 A	19900529	10	Method and apparatus for processing a still picture signal	348/231	375/240.01		Maeda, Satoshi et al
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5402170 A	19950328	10	Hand-manipulated electronic camera tethered to a personal computer	348/211	348/376; 348/552		Parulski, Kenneth
7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6380972 B1	20020430	24	Video system including a camera controlled by a control apparatus through communication means	348/211	348/333.02		Suga, Akira et al
8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5675358 A	19971007	34	Digital image capture control	345/420	345/419; 345/634;		Bullock, Garland
9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5576839 A	19961119	39	Camera system including a separable recorder	386/113	360/69		Morimoto, Yasuaki
10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6332147 B1	20011218	41	Computer controlled display system using a graphical replay device to control playback of	707/500.1	707/512		Moran, Thomas

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- L1: (45) ("6005493" or "5633678" or "6014170" or "5844568" or "5764278" or "6133941")...
- L2: (13) ("5742779" | "5760916" | "5760917" | "5796428" | "5898779").PN.
- L3: (3) sub adj1 image\$1 same (sound\$1 or audio\$1) same (camera\$1) same (computer\$1)
- L5: (16) ("5687160" | "5706097" | "5754227" | "5761373" | "5813010" | "5845046").PN.
- L4: (10) (sub adj1 image\$1 or thumbnail) same (sound\$1 or audio\$1) same (camera\$1) same (computer\$1)
- L6: (32) ("4221938" | "4907283" | "5164831" | "5189630" | "5771334" | "5806072" | "5835669" | "59...
- L7: (41) ("5608874" | "5706502" | "5710883" | "5715397" | "5745360" | "5752022" | "5778367" | "58...
- L8: (10) 5796428.URPN.
- L9: (0) 6237010.URPN.
- L10: (13) ("5742779" | "5760916" | "5760917" | "5796428" | "5898779").PN.
- L11: (18) ("5021989" | "5742339" | "5781175" | "5796428" | "5977976").PN.
- L12: (2) 6097431.URPN.
- L13: (55) ("5016107" | "5164831" | "5341466" | "5345552" | "5414811" | "5434969" | "5493335" | "5...
- L14: (55) ("5016107" | "5164831" | "5341466" | "5345552" | "5414811" | "5434969" | "5493335" | "5...
- L15: (14) ("4602333" | "4931984" | "4992887" | "5129011" | "5165103").PN.
- L16: (5) 5724579.URPN.
- L17: (29) ("4868642" | "5392388" | "5444478" | "5524071" | "5650814" | "5680150" | "5706419" | "5...
- L18: (0) 6243103.URPN.
- L19: (28) ("5099324" | "5243418" | "5383128" | "5422812" | "5459824" | "5500904" | "5588067" | "5...
- L20: (1) 6005493.URPN.
- L21: (16) ("4574319" | "4982291" | "5024804" | "5130813" | "5229862" | "5353121").PN

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29 and 25 and (sound\$1 or audio\$1 or voice\$1)

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	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20010024447 A1		42	Audio information reproducing system, audio information reproducing		
2	<input type="checkbox"/>	<input type="checkbox"/>	US 20010022624 A1		38	Image obtaining method, image pick-up device, image pick-up information		
3	<input type="checkbox"/>	<input type="checkbox"/>	US 20010013949 A1		45	Communication apparatus, image processing apparatus, communication system		
4	<input type="checkbox"/>	<input type="checkbox"/>	US 20010012051 A1		25	Method for transmitting image data and communication terminal		
5	<input type="checkbox"/>	<input type="checkbox"/>	US 20010012023 A1		12	Display apparatus and method and recording		

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29 and 25 and (sound\$1 or audio\$1 or voice\$1)

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	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20010024447 A1		42	Audio information reproducing system, audio information reproducing		
2	<input type="checkbox"/>	<input type="checkbox"/>	US 20010022624 A1		38	Image obtaining method, image pick-up device, image pick-up information		
3	<input type="checkbox"/>	<input type="checkbox"/>	US 20010013949 A1		45	Communication apparatus, image processing apparatus, communication system		
4	<input type="checkbox"/>	<input type="checkbox"/>	US 20010012051 A1		25	Method for transmitting image data and communication terminal		
5	<input type="checkbox"/>	<input type="checkbox"/>	US 20010012023 A1		17	Display apparatus and methods and recording		

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	Document ID	Source	Issue Dat	Pages	Current OR	
1	US 20020060740 A	US-PGPUB	20020523	23	348/231.6	3
2	US 20010017979 A	US-PGPUB	20010830	29	386/117	3
3	US 6427049 B2	USPAT	20020730	26	386/117	3
4	US 6334027 B1	USPAT	20011225	27	386/117	3
5	US 6212331 B1	USPAT	20010403	25	386/117	3
6	US 6175092 B1	USPAT	20010116	14	209/587	2
7	US 6035323 A	USPAT	20000307	32	709/201	7
8	US 5966553 A	USPAT	19991012	22	396/303	3
9	US 5960155 A	USPAT	19990928	28	386/117	3
10	US 5736982 A	USPAT	19980407	45	345/706	3
11	US 5623710 A	USPAT	19970422	20	396/300	3
12	US 5204706 A	USPAT	19930420	14	352/129	3
13	US 5177513 A	USPAT	19930105	18	352/129	3

United States Patent ⁽¹⁵⁾

Salto

US0005204706A
(11) Patent Number: 5,204,706
(45) Date of Patent: Apr. 20, 1993

[54] MOVING PICTURE MANAGING DEVICE

[75] Inventor: Akira Salto, Tokyo, Japan

[73] Assignee: Kabushiki Kaisha Toshiba, Kawasaki, Japan

[21] Appl. No.: 797,851

[22] Filed: Nov. 26, 1991

[30] Foreign Application Priority Data

Nov. 30, 1990 ⁽²⁷⁾ Japan 5-462,116

[31] Int. Cl. 5 G06B 31/00

[32] U.S. Cl. 352/129, 352/131

[33] Field of Search 352/129, 131, 352/111, 352/112

[56] References Cited

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Primary Examiner—Monroe H. Hayes

Attorney, Agent, or Firm—Cushman, Darby & Cushman

[57] ABSTRACT

In a moving picture managing device, a boundary sensor senses the boundary between a cut of the input moving picture consisting of a plurality of frames and another cut on the basis of the difference in the number of blocks at the time of encoding the moving picture for a frame between the frame and an adjacent frame. Based on the boundaries sensed at the boundary sensor, the moving picture is filed in cuts. The moving picture is processed so as to be stored in a memory in a tree structure fashion in which the moving picture is composed of scenes and a plurality of cuts, each scene consisting of cuts. The filing is managed in cuts under the tree structure.

10 Claims, 8 Drawing Sheets

